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ABSTRACT

This paper proposes a broader and more rigorous approach to the analysis of errors produced by second language learners. As a supplement to longitudinal studies, a procedure called "lateralisation" is advocated as a way of providing the researcher with more data than is normally available through examination of learner text alone. In this procedure a preliminary analysis of learner texts is used to draw preliminary hypotheses, which can then be tested by giving the learner reconstructed errors for his approval or rejection. From this, an abstract characterization of errors can be made. The elicitation of linguistic and metalinguistic statements from the learner on his errors is the stage that should considerably increase the amount of specific data the researcher can obtain. However, since the learner's language is in a state of flux, it is important to use the elicitation techniques very soon after the initial learner texts have been developed. Although this work is limited to linguistic analysis, the help of social psychology is also indicated as important. Several examples of elicitation are given, including a case study that illustrates the use of elicitation in error analysis. (AM)

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# ELICITATION, LATERALISATION AND ERROR ANALYSIS

Eric Kellerman

In this paper it is my intention to propose a broader and more exacting approach to the study of language produced by second language learners. In particular it is felt that the learner himself must be increasingly utilised in ways similar to those associated with native informants in order to provide the researcher with more data than is normally available by examination of learner text alone. Thus by procedures aimed at obtaining both linguistic and metalinguistic information and by the application of certain techniques borrowed from social psychology, a much more detailed picture of the learner's knowledge of his target language (TL) might be achieved.

Recently the theory has been put forward (Corder 1967) that the errors[1] made by language learners may be viewed as evidence of strategic approaches to learning concerning the evaluation of hypotheses about the nature of the TL, rather in the way that the child may be said to do so in the acquisition of his native language (NL). Granted that this may be so, a study of errors should enable the researcher to explore some of the processes of second language learning in terms of the types of hypotheses formulated by learners, the order in which language items are learned, the effects of a teaching syllabus, the role of the learner's NL and other linguistic and non-linguistic factors which may have some bearing on the learning process. To undertake studies of this kind, extremely complex longitudinal investigations are required and though these have been called for on several occasions (Corder 1971, Reibel 1971, Richards 1971)[2] to date there have been very few actually completed (e.g. Ravem 1969, Dato 1971).[3] This is hardly surprising in view of the considerable practical difficulties involved in carrying out such projects, and both Ravem's and Dato's studies are based on the learning of a second language by their own young children. While the need for such longitudinal studies is clear, a great deal of valuable research has yet to be carried out on the latitudinal axis of the language learning process. This research would be aimed at examining thoroughly the state of the learner's knowledge of the TL at a precise moment in time by means of 'lateralisation' of linguistic data already available to the analyst from the evidence of the learner's text. If one confines oneself to such texts, then the data available for analysis is quantatively impoverished, for there is obviously a limit to the amount of language that can be produced by a single learner, particularly in a classroom context, where time is inevitably in short supply. In addition, some of this language will be of limited value in studies of this kind - it is difficult to see what use could be made of laboratory drills or

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blank-filling exercises (cf. Corder 1972). Certainly essays, reproductions, letter-writing, dictation, etc. can all serve as grist to the analyst's mill for these are examples of language skills with applications in everyday life, especially where the learner is or has been a participant in further education. Nevertheless, the fact remains that despite the limitations in the amount of data deriving from this source, analysts have often felt confident enough to arrive at seemingly definite conclusions as to the provenance of errors.[4] Obviously, from a pedagogical point of view, if remedial teaching based on such analyses appears successful (to whoever) then there is no more to be done, even though it is possible that a different, yet equally adequate, analysis might have led to a different remedial approach. How, then, do analysts arrive at their conclusions about errors with such apparent certainty? The answer would seem to lie in several directions. Firstly, the analyst as teacher will have experience of the problems generally associated with the learning of a particular language; he may share his students' NL or be a native speaker of their TL. He may also have the benefit of the formalised experience of other teachers. He will certainly be familiar with the particular capabilities of his own students. The analyst as linguist has recourse to the findings of contrastive analysis (which he may have to undertake himself) and to detailed accounts of the structures of his students' NL and their TL. He thus may bring considerable experiential insights to bear on the analysis of errors. Thus while on the evidence of a learner's output several hypotheses about the nature of a single error may be possible, all to some extent observationally adequate, the analyst will in fact tend, because of these experiential insights, to reject (or not even to formulate) any number of these. However, this is not to suggest that such experientially-assisted hypotheses are never controversial. While such controversy may not be critical from a pedagogical point of view, it is clearly of some importance from a psycholinguistic one. There are times when it is very easy to quibble with some analyses even when they are expressed as if they represented incontrovertible fact. An analysis which is occasionally open to the charge of unjustified self-conviction is that presented by Richards (1971) in a much-quoted paper. Richards, on the basis of very limited data, comes to conclusions that lead one to question the efficacity of analytical procedures based on such scanty evidence. To demonstrate what I mean, here are two examples drawn from Richard's paper. He proposes three categories of error; interference from the NL, overgeneralisation of TL rules, and performance errors.

| French speaker | Richards' category of error |
|---|---|
| ... this is occurs | overgeneralisation |

Richards says:

> ... the French speaker seems to have generalised the form 'is occurs' from his experience of forms like 'it is made of' and 'it occurs'.

It is not at all obvious for what reasons he assumes that this confusion might have taken place, nor why he should have selected 'it is made of' as one of the form types confused. Furthermore, he rejects the possibility of this error being an accidental formation (i.e. a performance error) as the student does not correct it on being shown the transcript of his text (cf. Corder 1971b esp: p.152). Theoretically a performance error might be correctable without assistance but it is arguable whether it is sound experimental technique to ask a learner to check his own text for such errors, and subsequently to use the results of such a check as the means of identifying them. Surely a psychological phenomenon like a performance error cannot be defined on the basis that it is potentially correctable by its author. Not only is it easy for the learner to overlook such errors but it is also possible that he may decide to alter a form he previously produced, not because it was now obviously erroneous to him but because he subsequently preferred an alternative at a point where uncertainty had existed in his mind as to the relative merits of two or more competing forms. Such 'second thoughts' could not be operationally distinguished from corrections of performance errors. In this context of 'subsequent correctability' it would be interesting to know how Richards would deal with a learner who 'corrected' an error-free sentence by producing an erroneous one in its place. (I have had examples of this 'recidivism'.) In fact there are several possible directions of correction, for while we have seen that an erroneous form could be altered to an error-free one and vice-versa, it would also be possible for one erroneous form to be replaced by another, or a correct form to be replaced by another correct form. Methodologically, all such alterations would have to be treated as 'performance errors' - an unsatisfactory state of affairs. It seems clear that where several possible explanations for an error exist, none should be given absolute priority on the strength of experiential insights alone.

| French speaker | Richards category of error |
|---|---|
| The camera enregistrate the image<br>The image disappear | overgeneralisation |

Richards maintains that this error (and others cited in his article) is caused by the overgeneralisation of a rule that assigns zero endings to all finite verb forms, except of course, in the 3rd person singular of present tense in English. The learner has failed to take account of this exception according to this analysis. However, this hypothesis cannot be considered very likely in this

case for a number of reasons:

a. In the case of 'enregistrate', the correctly inflected form occurs just four short sentences later in the learner's text, viz.,

> It is composed with a lens and behind the lens is little screen coated with cells and enregistrates the light.

b. This French student is capable of giving fairly intricate accounts in English of the workings of a camera, and elsewhere, the exploitation of natural resources and the principles of the steam engine. His command of vocabulary is clearly adequate, so that all in all it would be open to dispute that a student at this level of competence would make such 'elementary' errors except through inadvertence (i.e. performance errors). The first example, 'it is occurs', may be seen to corroborate this argument for the verb is correctly inflected (though of course the verb itself is erroneous).

c. Finally, the problem may be phonological. These errors may well have been avoided if each piece quoted in the article had been written rather than spoken and recorded. We may have here an example of interference from French syllable structure, though this theory would not account for the correctly inflected 'enregistrates' which occurs so shortly afterwards. The occurrence of these two forms so close together lends weight to the argument against correctability as a defining characteristic of performance errors. I would prefer to think, using the little evidence there is, that 'enregistrate' is simply a performance failure, a psychological slip compounded by phonological pressure from French.

On the face of it, Richards' classifications do not seem convincing because they are insufficiently supported. Similar statements as to the provenance of errors are not uncommon. Buteau (1970), for instance, in her analysis of errors made by students of French, attributes the selection of forms 'finissont' and 'venont' in the frames 'ces élèves _____' and 'tes amis _____' in a multiple-choice test to the generalisation of "the inflection used in the present tense of avoir, être, faire, aller, and in the future of all verbs". Her assumption thus is that this handful of irregular verbs could interfere with a rule of nearly absolute generality in French, namely that the third person plural present tense ending is -ent. Furthermore the morphology of the future tense is also somehow involved, even though this tense is likely to have been taught after the present tense. How she can safely make this assumption on the basis of an incorrect selection by a relatively small percentage of

students (12.3% and 5.8% respectively) in a multiple-choice test is not at all clear. In Dulay and Burt's paper (1972), it is maintained that the non-appearance in interrogative sentences of auxiliary DO with full verbs in the speech of Norwegian children learning English was due to their overgeneralisation of HAVE + NP ....? while living in England "where the verb HAVE is permuted: Has he a job? Have you a cold?" This sweeping statement about HAVE in British English is manifestly inaccurate.

It is refreshing to come across analyses which have been thoroughly researched (cf. Bickerton 1971, Hill 1957) or which at least strike a welcome and appropriate note of caution. Duskova (1969), in her analysis of errors made by Czech learners of English, makes a very good point about making inferences from limited data:

> For the purposes of teaching, nonce mistakes appear to be of small value since the conclusions that can be drawn from them, if any, apply only to one particular learner, and unless some system can be discovered in them, they are of little value even in the case of the learner who commits them. (Emphasis mine)

Instead she proposes that the analyst should concentrate on recurring and systematic errors made by a number of learners. This indeed may be said to represent the traditional approach to error analysis, and certainly from a pedagogical point of view, it would be uneconomical to do otherwise. However, a psycholinguistic study of second language learning requires the analyst to look more carefully at individual outputs in order to discover what system or systems, if any, are operating behind the most minimal data. Again it is necessary to reiterate the need for 'lateralisation' of available data, in order to refine the first-order hypotheses that come as a result of applying experiential insights to these data. A considerable degree of lateralisation can sometimes be achieved by elicitation of specific language items from learners. The subsequent increase in relevant information might enable the analyst to evaluate more clearly the competing claims of various observationally adequate and experientially valid hypotheses.

The procedure aimed at lateralising data which I am suggesting is hardly controversial and differs little from data-gathering and analysis procedures outlined by linguists such as Garvin (1962). The first stages follow closely those of conventional error analysis except that they apply to individual learners rather than groups and can be used to deal with nonce forms. Thus the initial step consists of the selection of the appropriate texts from which the analyst will then isolate those areas which are of particular interest to him, followed by a preliminary analysis. On the basis of this analysis he will arrive at a number of first-order hypotheses carrying varying degrees of conviction. These hypotheses he will then test, in the first instance by constructing errors

based on the 'model' error contained in the learner's text. These constructions will be so formed as to incorporate the first order hypotheses, and will then be fed back to the learner for his approval or rejection, so that he provides the analyst with judgements about the nature of his own internalised TL grammar. In this way it might be possible, on the basis of the learner's reactions to these test forms to modify, reject or confirm the first-order hypotheses, thus hopefully leading to an abstract characterisation of errors rather than a merely taxonomic one. By using the basic techniques of elicitation, such as syntagmatic and paradigmatic variation, paraphrase, translation, etc., the amount of specific data obtainable may become considerably enriched. There is no reason why, through elicitation, lateralisation cannot continue into areas less directly related to items in the original text. It would be of interest to study, for instance, the learner's range of 'syntactic implications' in his language. Thus in English, if we have HE CANED THE BOY we may also have THE CANING OF BOYS MUST CEASE and HIS CANING JOHN WAS QUITE UNNECESSARY. The appearance of OF in the 'action nominalisation' (Lees 1960) is generally obligatory when there is no preposition associated with the related verb. Such syntactic implications should be acceptable to a great number of native speakers of English. The question arises to what extent such series also occur in the learner's language, and whether they reflect the learner's NL, his TL, or are in some way idiosyncratic. However, it is no use waiting for the evidence to appear textually, not only because there is no guarantee that it will ever do so, but also because the learner's language is (hopefully) in a state of flux. Dilatoriness in the elicitation stage will tend to invalidate attempts to achieve lateralisation of data. To attempt to discover something of what the learner knows, the analyst has to work quickly in order to 'freeze' that knowledge at a given point. (cf. Keibel 1971 esp. p.95n)

Corder (1972) has pointed out many of the ways in which second-language learners as informants differ from their counterparts in other fields, i.e. the child acquiring his first language and the adult native informant. These differences may be summed up as follows: very young children possess only what they know of their first language; the language learner on the other hand, if an adult, not only knows (or thinks he knows) something of the TL but also possesses a NL. Furthermore, if he is an adult who has been the recipient of language teaching he will almost certainly possess a metalanguage of some sort as a by-product of that teaching. Children are not generally considered to possess a metalinguistic faculty though a recent study suggests they might do (Gleitman, Gleitman and Shipley, 1972). The native informant may possess a metalanguage and speak the researcher's NL, but not necessarily so. Additionally, the native informant's judgements about his language may not correlate with his actual language performance, for during elicitation he may be appealing to some supposedly higher linguistic norm to which he aspires but which he does not attain (cf. Samarin

p.196). This is far less likely to be true of the language learner, particularly when his text forms the basis for elicitation. Corder rightly points out that the possession of a metalanguage is important, for with it a learner can make available to us his intuitions about the nature of the language he is learning; however the existence of such a metalanguage does not necessarily mean that the learner's intuitions are valid, for it is unlikely that any learner (let alone native speaker) is capable of giving a complete account of them, and often such accounts as there may be represent little more than post-hoc rationalisations on the part of the learner as a response to questioning by the analyst. These metalinguistic statements cannot be ignored, however, for they can provide clues about the way in which the learner's language is organised when conventional and lateral analyses fail or are insufficiently refined. There is no reason why a learner cannot be asked to give an explanation as to why he arrives at a certain form, and it is often interesting to see whether the analysis arrived at by the researcher matches the explanation offered by the learner. The danger exists for the learner, however, that once such an explanation has been voiced, he will follow it to the letter, even though the 'true' linguistic rules he had been applying previously were not really those implicit in the learner's statements to the analyst. However when so little is known about what the learner does, post-hoc rationalisations are potentially useful but they have to be viewed circumspectly. I give two examples where two such statements have interesting implications. They were made by two students during discussions of particular sentences each had written. Neither student knew that each sentence was, in fact, erroneous. The first student, German, wrote:

> The boat was going to leave Ostend harbour at 13.30 the other day

when her co-text and translation of the sentence as 'am anderen Tag' unambiguously indicated that she should have used 'next' in place of 'other', i.e. 'the next day'. On the basis of experience, one might attribute such an error to interference from German. However this analysis seems to be an oversimplification. Firstly, the student seemed convinced that her sentence was definitely correct English, at the same time rejecting another sentence containing 'next' in place of 'other' in favour of her own, even though she quite willingly conceded that one could say 'am nächsten Tag' in German. This suggested that she may have had some sort of idiosyncratic system which distinguished lexically between temporal and spatial relationships or between 'proximity' and 'succession', or combinations of both. Elicitation along these lines was not entirely conclusive though the temporal/spatial distinction seemed to exist. Finally I asked the student what the difference between 'other' and 'next' was, and the answer was a confirmation of the temporal/spatial distinction[5]. Since elicitation had already indicated that such a distinction was being made, the student's statement can be assumed to have some foundation. This example also goes to show once more how

analysis of text alone may prove inadequate, even though subsequent analysis serves only to make the situation more complex.

The second example relates to a Swiss-German student who wrote the following:

I had not a great conversation.

After elicitation aimed at exploring some of the syntactic implications of the HAVE form, I asked the student for her comments on the equivalent English sentence containing the dummy auxiliary DO, viz.,

I didn't have much conversation.

Again this sentence was rejected in favour of the original erroneous sentence. She offered the unsolicited statement, however, that although she had often heard sentences with DO + HAVE in England, she had never used them, as her teacher in Switzerland had told her that DO and HAVE could not co-occur in such circumstances! This apparent case of one rule for the English, and another for Swiss students tells us at the very least that the student was prepared to justify her sentence in the face of my probing. Whether there is any truth in what she said cannot, of course, be established, though her statement raises a broader issue concerning the importance of the learner himself in the analysis of errors. In order to make advances in the study of the language learning process, we need to know more than the nature of linguistic inputs and outputs. Clearly the beliefs of the learner himself about the specific language he is learning, whether these beliefs are the result of teaching or deriving from the learner himself, must affect in subtle and not so subtle ways the actual language he produces. Differences between native and target cultures may also have some significant part to play. Although measures of attitude and motivation do exist in the field of second language learning (cf. Jakobovits 1970) these are likely to prove insufficiently detailed or revealing. More sophisticated methods of research are needed, designed to assess the personality of the individual, especially within the actual teaching/learning situation itself. This situation contains at least two people in it, one of whom is the teacher, and thus the reaction of teacher to student, and to the class as a whole, as well as the reaction of the students to each other must have some affect on the learning of the target language. Observation has shown that, all conditions being equal, while some students attempt to produce extremely complex work both in content and language, others will usually be satisfied to produce work which, though error-free, is relatively simple in content and structure. In the first case it seems as if the student is putting the desire to communicate above the desire to be grammatical. This difference may be attributable to individual characteristics not limited to the learning of a second language; on the other hand it may be the result of a

particular approach to the learning of the second language. The analyst needs help from the social psychologist in devising schemes by which such information might be obtained. For the moment it seems unlikely that very much can be done in this direction and even if such schemes were available it is not at all clear how their findings could actually be linked up to linguistic performance. Obviously a start can be made through the application of certain tests (perhaps measuring introversion extroversion, dogmatism, conservatism, extra- and intrapunitiveness etc.) to individual learners, coupled with in-depth interviews in which a picture of the learner and his varying beliefs and attitudes might be elicited. Such interviews would, however, require an inordinate amount of skill on the part of the interviewer. As for the role of the individual in the teaching/learning situation, one method that springs to mind that can be used to assess the individual's standing within the group is Interaction Process Analysis (Bayles 1970) which makes use of the intuitive feelings that people have for other members of their group, and also makes use of the skilled observation of the group in action. For the moment the fact remains that what we know of the learner's contribution to the language he produces is limited to impressions. We need an overall, accurate picture. Coupled to this, it would also be necessary to have access to the material which served as potential input for the learner, i.e. the actual teaching he received. Knowledge of this material, which does not necessarily constitute the input itself, would allow the analyst to make some inferences as to the individual strategies adopted by learners, but the practical difficulties remain enormous.

There is one further area where the learner can offer the analyst some direct assistance, for he can give an account of the relative difficulty he experiences in the production of a particular form. He is often able to state not only the precise point at which the difficulty exists, but also what alternative forms were available to him (if any) and why they were not selected. Furthermore he can state whether such processes as analogising or inferencing (Carton 1971) were available to him. It is apparent in work of this kind that the occurrence of error and those points at which the learner experiences difficulty do not necessarily coincide, for an error-free sentence may have caused the learner considerable difficulties in its formation while a completely erroneous sentence may have caused him none. Thus learners often demonstrate just jow strongly certain patterns are embedded in their internalised TL grammars by total adherence to them during elicitation. The following sentence was written by a German student who maintained that this sentence was correct English even after being asked to comment on the corrected form with AT replacing IN:

....but in that very moment it was six o'clock.

The following short conversation then took place:

EK: Now you thought you were 100% right. I wrote 'at that very moment.' You are quite convinced that it is 'in that very moment'?

S: The only question would be, is it correct to say 'it was six o'clock' or 'it had been six o'clock'. That would be the only question.

One of the more fortunate side-effects of such elicitation procedures is that occasionally one obtains potentially useful information when it is not expressly being sought. In this case we learn that there is a trace of uncertainty as to the selection of simple past over past perfect. On the basis of this statement, one might explore this student's knowledge of aspects of the English tense system.

Other examples of such adherences to erroneous forms are not difficult to find, and, not surprisingly, they often seem to reflect interference from the NL. I append one more example of such adherence, which additionally gives very limited evidence for an implicational set of a sort, namely positional variation of a subordinate clause within a sentence. The sentence in question is:

Arrived in Dover, the first thing what I had to get used to was left-hand driving.

Again as in the previous example, the student's expressed difficulty lay not with the erroneous parts of the sentence, but with a part that was actually correct, namely 'I had to get used to'. The dialogue was as follows:

EK: You said you were unsure about this sentence. What were you not sure about?

S: This part of the sentence, 'I had to get used to...' This was a little bit much, but I tried it.

EK: You thought this was probably where you were going to be wrong?

S: Yes, it could be, yes.

EK: ... Would you tell me if this sentence is for you correct English? 'The first thing what I had to get used to, arrived in Dover, was left-hand driving;'

S: No, I think you must put 'arrived in Dover' at the beginning or at the end.

EK: So you would say 'The first thing what I had to get used to was left-hand driving, ~~having~~ arrived in Dover'?

S: Yes, I think you can say it.

EK: Would you say that this sentence is right? 'Sat down, I asked for a drink' You're in a restaurant or something.

S: Yes, I think so.

EK: Now try this one. Still in the restaurant, right? 'Eaten the sandwich, the waiter brought me another.'

S: Yes.

etc.

One must treat the data derived from such elicitation with some care however because of the effects of perseveration, amongst other things. Elicitation sessions incorporate a 'teaching effect', and the longer an informant is asked for his judgements, the less likely these judgements are to be reliable.

While the above examples seem to demonstrate how committed a learner may be to his own production (with the reservations as to the reliability of such data already mentioned), learners tend to display varying degrees of commitment ranging from total confidence to a complete lack of it. These degrees of adherence may be due, in some respect, to individual personality traits, and it is unfortunate that it is extremely difficult to check up on the findings of conventional and lateral analysis by observation of the spontaneous speech of learners. Nevertheless, it would be wrong to accord all errors equal status within the learner's grammar. Clearly some errors do represent absolutely correct forms for their authors but others may represent forms in conflict with competing forms. The degree of conflict between two or more competing forms might be expressed in theory by a score of probability of a form actually appearing. Thus while groups of learners with the same linguistic background may be said to produce errors described as 'typical' for that group, this does not mean that these errors are in any sense equal in terms of each individual's TL grammar. To take extreme cases, a meticulous psycholinguistic description of the learner's language should attempt to distinguish between an 'absolute' error and a performance error, when both are identical in surface form, and would be described in identical ways in any formal grammatical model. Psychologically, and pedagogically, they would be quite different, of course. A possible example of an 'absolute' error is, as we have seen, 'the other day', instead of 'the next day'. At the same time this very error was made by another student, who without prompting was able to correct her sentence and offer the explanation that her error was due to carelessness, and that 'the other day' was 'a very German translation'. There will be other types of error too, some limited to production only (i.e. the learner recognises the correct form

even if he does not produce it) and there will be those errors caused by the learner exploring the TL. It does not seem that it is methodologically possible at the moment to distinguish confidently between these (and other) types of error, but patterns of response in elicitation procedures may provide clues as to the possible status of such forms. Rules could then be written for fragments of the learner language, incorporating, in the relevant areas, 'shadow grammars' in which alternative forms might be expressed as variational probabilities. In many cases the shadow forms would never appear, of course, even though they might continue to interfere with the production of the selected form. It is likely that the variational probability of the principal and the shadow form will alter vis-à-vis each other as time goes on, until the latter is (hopefully) extinguished. Thus it is unwise to assume that the appearance of an ostensibly correct TL form indicates that the learner has at least in one area no more to learn, for not only might such a form be 'right by chance' (Corder 1971a) but it might be in competition with any number of competing forms up to and including free variation.

My own work follows the methodological proposals above as far as is possible, though without entering into the realm of social psychology. I have limited myself to purely linguistic analysis accordingly. Thus while the procedures leading to the formulation of first-order hypotheses are reasonably straightforward the practical problems of elicitation of linguistic and metalinguistic data are considerable. Each step of the procedure is time-consuming, and for this reason, and in order to minimise the time-factor, preliminary analysis may be sketchy. A sketchy analysis leads to sketchy elicitation, with the result that one finishes up with incoherent data and desperate appeals to the learner for explanations. Here lies the basic problem of all attempts at lateralisation; any set of procedures designed to collect and analyse data is really longitudinal. Accordingly one must make a methodological assumption, namely that provided the analyst works swiftly to complete the various steps, he is effectively examining a latitudinal section of the learner's knowledge. How swiftly he has to act I cannot say - I aim to complete the various steps and procedures with an individual within one or two days. Consequently I am aware of the inadequacy of many of my very tentative conclusions. Though I believe that elicitation has an important role to play in such studies of second language learning, I do not believe that we can do much more than begin to scratch the surface with such procedures. One needs considerable luck, and it is easy to miss potentially useful important lines of inquiry during the course of the investigation. Unfortunately, it is not always possible to return to the learner to pursue these lines because of changes in the state of the learner's knowledge which may have taken place, or because he is no longer available.

Until we know a great deal more about the psychological and social make-up of individual learners and the strategies they bring to the problems of learning, we can make little more than informed guesses as to what language learning mechanisms are. Nevertheless I maintain that by bringing the learner into the analysis of his text in some of the ways outlined in this paper, we are making available data that are useful in the refinement of techniques of analysis of language produced by learners beyond the point permitted by the application of experiential insights alone.

## A case study of the use of elicitation as a component of error analysis

A Swiss-German student produced the following sentence in a free composition:

AFTER CLOSING THE DOORS,
THE JET (TOOK OFF).

The co-text of this sentence is as follows:-

There were many other students in the same place, but I didn't know anybody. After ..... (took off). With big noise and full power the jet rised in the sky.

A cursory analysis of this error, without reference to the learner's NL would indicate only a contravention of an English rule which could be stated thus; 'Given a sentence consisting of a main and one or more subordinate clauses, if the subordinate clause is introduced by a subordinating conjunction of the class of which AFTER is a member, then, optionally, if the grammatical subject of this clause is coreferential with the grammatical subject of the main clause, then the subject of the former may be deleted, and the finite verb form (full or auxiliary in the case of HAVE, BE) replaced by the non-finite ING-form;'. Thus in English we may say:-

a) After (he) had seen Fountains Abbey, (he) became a monk.
John Smith

$a_1$) After seeing Fountains Abbey, he became a monk.

$a_2$) After having seen Fountains Abbey, he became a monk.

The following sentence pairs confirm contraventions of the above rule:-

b) After John identified the folly, Brian dated it.

$b_1$) *After identifying the folly, Brian dated it.

c) After Mary had their sixth child, Dan decided on a vasectomy.

$c_1$) *After having their sixth child, Dan decided on a vasectomy.

Both $b_1$ and $c_1$ break the co-reference condition.

Thus, to return to the original sentence,

d) AFTER CLOSING THE DOORS, THE JET (TOOK OFF)

we see that in terms of English, the co-reference condition is also violated. Nevertheless, it is easy to see that many native speakers of English would accept sentences such as d) as perfectly comprehensible and not in the least odd, so that we cannot assume, on the basis of the text alone, that this is not likewise a slip of the learner's pen.[6] The diagrams below attempt to illustrate in a non-rigorous way a number of means by which such a sentence might be generated in accordance with the data derived from textual analysis, experiential insights and elicitation. The model used is essentially that proposed by Stockwell et al. (1973), though with one base rule not included in their model, namely that after the rule

MOD(ality) ⟶ (NEG) AUX (ADV) (Rule 2: Stockwell et al. p.27)

there should be an additional rule

ADV ⟶ (Place) (Time) (Manner)

from which we obtain

Time ⟶ PREP + NP

The first diagram, Fig. 1, represents the principle of subordinate clause reduction from finite to non-finite, when the subjects of both main and subordinate clause are co-referential, with subsequent subordinate clause subject deletion (See Fig. 1).

In order to arrive at the surface structure of the sentence in Fig. 1, three rules are required to act on its deep structure. The first of these is the Active Subject Placement rule (Stockwell et al. 1973) by which the last actant in the Proposition (other than a Locative) becomes the surface subject in the active voice. At the same time the preposition associated with the underlying case of the subject is deleted (See Fig. 2).

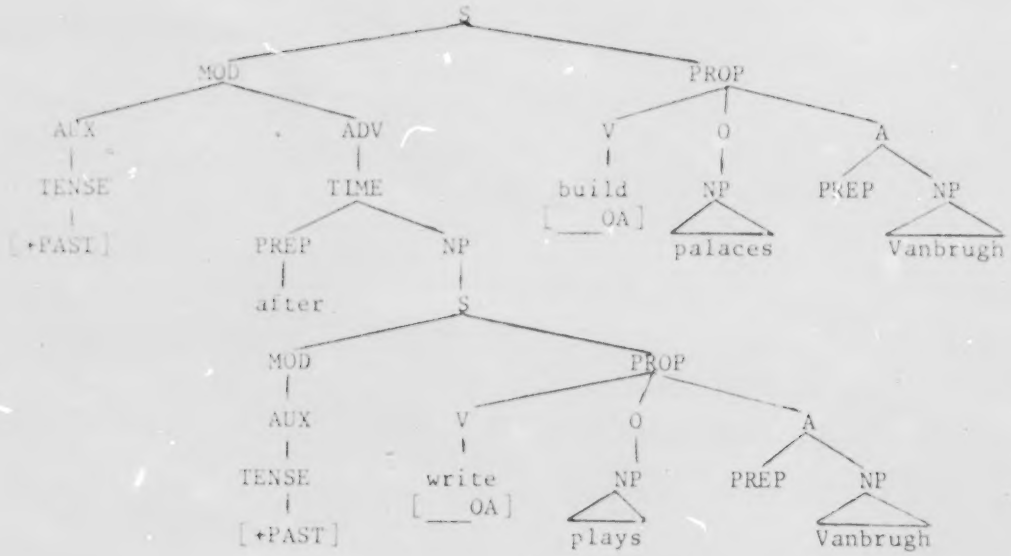


Fig. 1: Deep structure of

AFTER WRITING PLAYS, VANBRUGH BUILT PALACES.

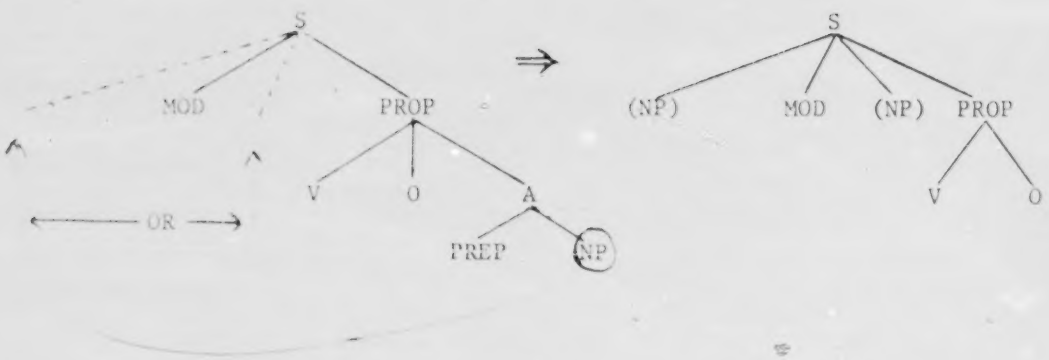


Fig. 2: Schema of Active Subject Placement rule.

Following the application of this rule, the next rule to be applied is equi-NP-deletion, by which the subject of the subordinate clause is deleted provided it is co-referential with the subject of the main clause.

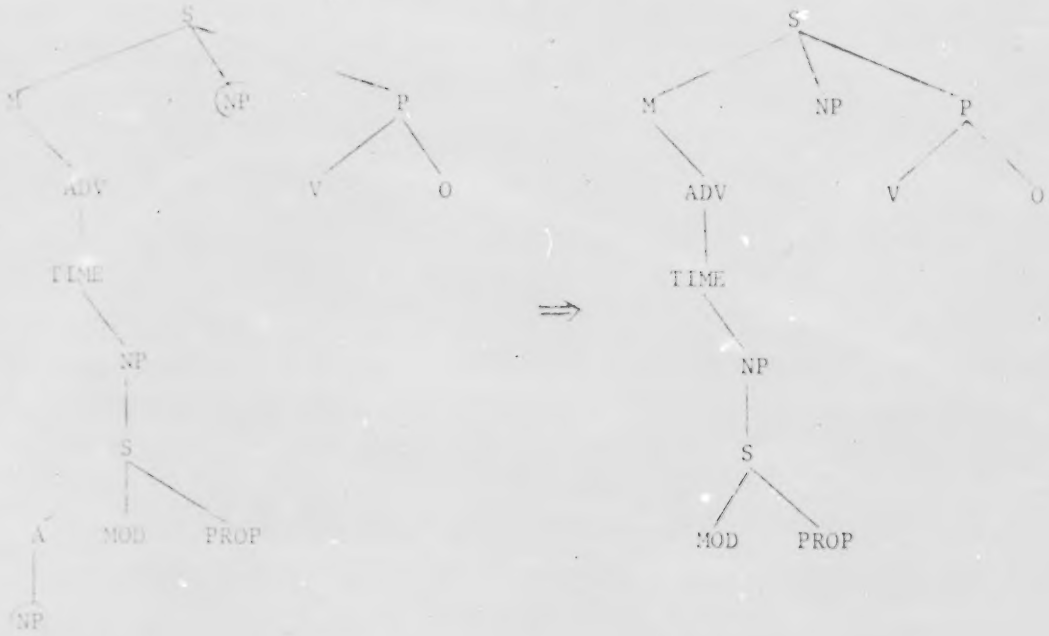


Fig. 3: Schema of Equi-NP-deletion rule

Finally, a gerundising rule is required to reduce the verb from the finite to the non-finite form:-

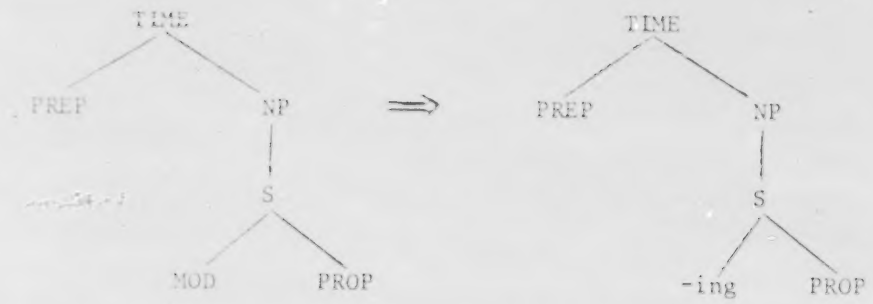


Fig. 4: Schema of Gerundisation rule.

The first possibility, that the learner had produced the form AFTER CLOSING THE DOORS, THE JET (TOOK OFF) as a slip of the pen, was temporarily ruled out by means of specific questioning: in other words, the student confirmed his adherence to this sentence both explicitly and implicitly.

A second possibility indicated by low-level analysis was that the learner had correctly applied the subordinate clause reduction schema according to English, but due to differences in lexical properties of the word jet between the learner's language and English, the sentence appeared to violate the co-reference condition. Under this interpretation, jet in the learner's language can be considered a collective noun with the feature [+Human] in the same way that 'government' or 'England' is:

The government is/are considering the next move.

England have never played so badly.

In English the word jet and allied nouns like plane, boat, ship, etc. can possess something of this collective nature referring to the cadre of personnel contained within the confines of the object. Thus note:

The jet has been forced to land.

The car is going to turn back at the border.

The ship is more relaxed now that the mutiny is over.

If this hypothesis is plausible, then in terms of the learner's language, the English subordinate clause reduction schema can proceed.

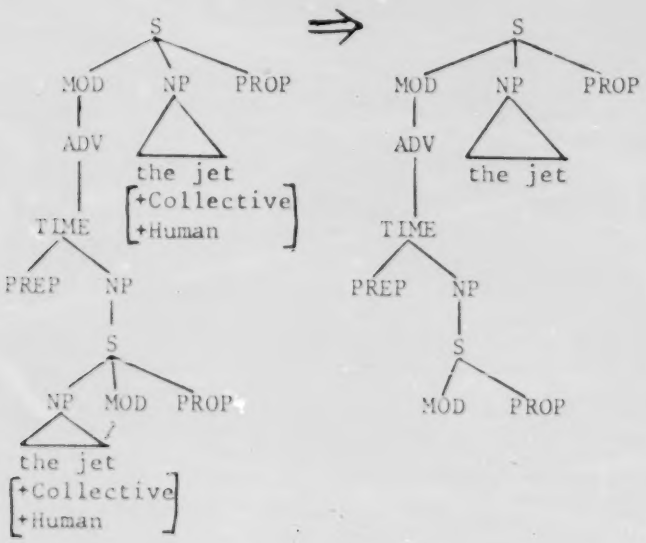


Fig. 5: Schema of subordinate clause reduction when jet has idiosyncratic rather than English lexical properties

In an attempt to test the validity of this hypothesis, the following sentences were offered to the learner:

a) After serving the drinks, the pub closed.

b) After watching the film, the cinema closed.

c) After ringing the bell, the boxing started.

d) After blowing out the candle, the house became dark.

e) After closing the doors, the car moved forward.

If the above hypothesis holds water, the learner ought to accept a) and e), and possibly b), but not c) and d). In saying this we make one assumption that underlies all work in second language research, namely that some of the learner's language will in fact be identical with the TL in all critical respects. Hence in b) I have assumed that the student's understanding of 'watching' is the same as mine, i.e. that cinemas show films and that audiences watch them (though even here we are in difficulty, e.g. 'the whole cinema was stunned by the scenes of gratuitous violence'). If it is not (as we are indeed positing with jet) then the elicitation procedure is useless, unless we can have recourse to one of the most useful ploys in error analysis, namely translation. The learner of a foreign language is capable of providing more information than the evidence of his own TL utterances and his intuitions about them; he can also provide a translation into his mother tongue, which should effectively aid in the successful interpretation of the meaning of the learner's utterance.

While it would be possible to account for the form of sentences like a) and e) above by the schema given in Fig. 5, in c) and d) it is difficult to find an implied subject of the subordinate clause that could be co-referential with the subject of the main clause. Additionally, a collective interpretation of house is not really possible in this context (i.e. 'dark'). Consequently it seems unlikely that the [+collective] interpretation has any basis since the student gave his assent to all the test sentences. At this stage we may tentatively rule out two hypotheses, 1) the slip of the pen hypothesis, and 2) the 'collective' noun hypothesis.

The third hypothesis is based on the possibility of deletion of a dummy subject in the subordinate clause. This treatment of the subordinate clause produces a form equivalent to an English agentless passive, i.e.

| Learner's form | English equivalent |
|---|---|
| AFTER CLOSING THE DOORS | After the doors were closed |

If we allow this interpretation, which is possible from the limited data gleaned from elicitation, then the schema would be as follows:

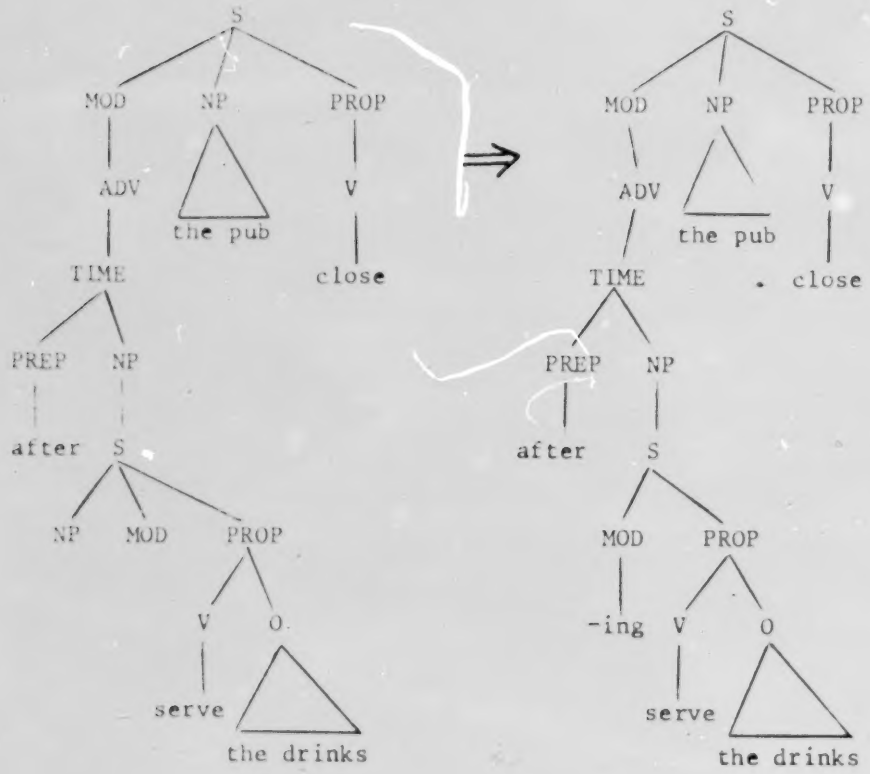


Fig. 6: After serving the drinks, the pub closed

Every one of the above sentences a) to e) can be analysed according to the above schema; it is formally adequate.

The fourth hypothesis, which has been partially tested, is based on the interpretation of the -ING form as a noun and has in its favour evidence from German. As a possible aid to analysis, I

asked the student to translate the sentence AFTER CLOSING THE DOORS etc., and his reply does indeed suggest the plausibility of the N-ING (rather than the V-ING) interpretation. His translation is:

Nach dem Schliessen der TÜren ...

where an agent is implicit (as it is in the third hypothesis). Thus we have a structure 'after N-ING the NP' equivalent in English to (the rather stilted) 'after the N-ING of the NP'.

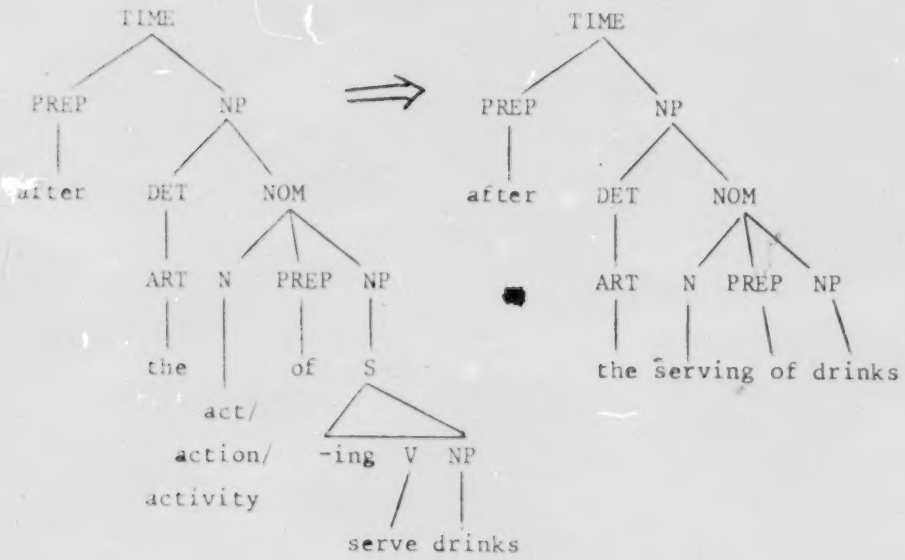


Fig. 7: Schema of AFTER THE SERVING OF DRINKS, THE PUB CLOSED

Stockwell et al.'s proposal for the generation of 'action nominals' (Lees 1960) posits that some head noun of a nominal group, such as ACT, ACTION or ACTIVITY (and specially marked in some way) is deleted and replaced by a gerund deriving from an embedded sentence in the nominal group. In the derivation of AFTER CLOSING THE DOORS, THE JET TOOK OFF, a similar underlying structure could be utilised, i.e.

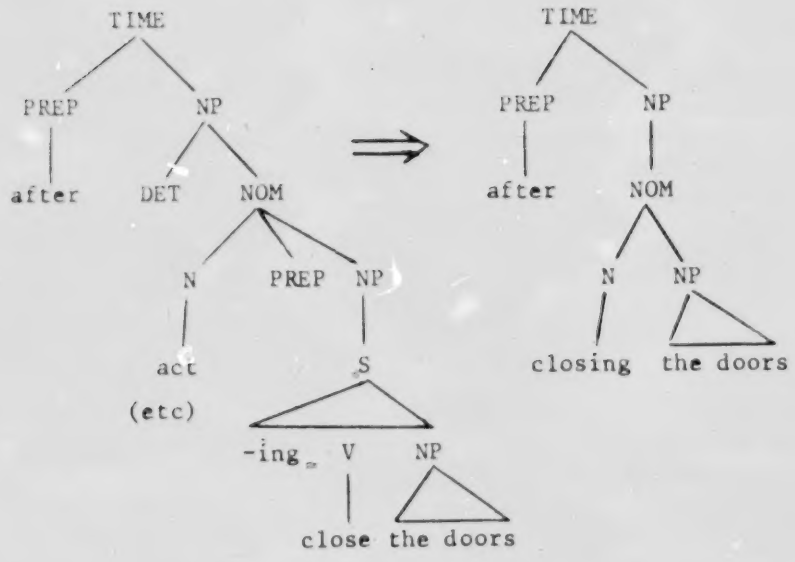


Fig. 8: Schema of AFTER CLOSING THE DOORS

Thus the evidence of contrastive analysis can be brought to bear on attempts to solve the above problem. Clearly, though this hypothesis (that the gerund is a noun rather than a verb) is attractive, it is by no means satisfactory. It might be possible to distinguish between hypotheses three and four by the giving of new tests to the learner designed to establish whether the -ING form was essentially N or V. Following a suggestion by James, this could be done by adverb insertion as follows:

After immediately serving the drinks, the pub closed.

After immediate serving the drinks, the pub closed.

etc.

The above analyses are, of course, sketchy and inconclusive, and do not claim to be explanations of what the learner knows, as data is very limited. There are other possible accounts of the derivation of the learner's sentence, of course, but the principal point I have

tried to make is that even one sentence is capable of a multi-facetted analysis, and that one of the most promising ways of testing these analyses is by elicitation. It is not for a moment suggested that elicitation must inevitably lead to a solution of the problem; on the contrary, it will often lead to an uncertainty of a more complex kind. However, even though it may not be possible to determine the exact nature of an error and its provenance by elicitation, it is to be hoped that some of the possible explanations will, by means of these procedures, be eliminated. Elicitation of linguistic data is only one part of the process of error analysis; it is complemented by elicitation of metalinguistic data, analysis of text, experiential insights, and observation of the learner's language in use. Only by carrying out such complementary studies will it be possible to attempt validation of hypotheses.

NOTES

1. Throughout this paper I use the term 'error' to refer to those forms which teachers of EFL would be expected to judge as incorrect. The term is retained despite its prescriptive flavour because the students on whose data parts of this paper are based have all been working towards advanced EFL examinations. It is recognised that while on the one hand there are those errors made by learners that nearly all educated native speakers would consider unacceptable, on the other there are those forms about which there would be considerable disagreement. In such latter cases, teachers still have to decide whether to allow these forms, which though to some extent acceptable to them, they themselves would never teach to students.

2. Thus Corder; "In order to make progress in the methods and materials of teaching second languages we need to be able to relate the materials and procedures used by the teacher to changes in the knowledge of the learner. For this we need longitudinal studies of learners expressed in terms of sequential sets of descriptions of their 'etats de dialecte'." Richards: "Are some of the errors observed in second language learning also representative of developmental sequences of which the learner masters the rules of the English grammatical system? ... What is needed is detailed longitudinal studies of an adult learner's progress with a second language documenting the appearance and development of particular structures."

   Reibel: "While research into child language learning is being

carried out by longitudinal studies, it seems curious that up to now research on adult language learning has typically proceded by means of synchronic studies of interference phenomena ... Such research is not without interest, but it leaves unanswered a whole host of questions. ... Quite a few methods of research suggest themselves, such as the study of spontaneous speech of adult learners over time to see the order in which certain features are acquired; acceptability experiments such as those of Quirk and Svartvik (1966); and the manipulation of various environmental conditions to determine their influence on speed and accuracy of learning."

3. Carl James has told me that one of his students at the University College of North Wales, Bangor, is currently undertaking a longitudinal study of a Spanish learner of English in Spain.

4. Among the many published error analyses of recent date, one would mention those by Arabski (1968), Duskova (1969), Buteau (1970), and Grauberg (1971).

5. Her explanation was as follows:- "'the other day' is a question of time ... I speak from today, and I can say 'the other day', that I can say but 'next' ... 'near to me', I would say, 'near to me'."

(Position?)

That's it. Yes, that's it. 'Other' is distance in the sense of time, and 'next to me', it is 'close to me'.

('Today' and 'tomorrow', this is 'other'?)

Yes.

6. For a discussion of the 'hanging' or unattached participle in English see, for instance, Quirk et al. (1972) pp.757-758.

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